

## WHAT IS WATER RECYCLING?

Rhode Islanders have become used to recycling their household goods. But what about water recycling? Water recycling is the safe reuse of treated wastewater for beneficial purposes, with no fear of health problems. A common type of recycled water is water that has first had pollutants removed at a municipal wastewater treatment plant. Beneficial uses include:

- Ecosystem restoration
- Landscape and agricultural irrigation
- Groundwater recharge (to augment the water supply or to prevent salt water intrusion into aquifers and wells)
- Industrial cooling

## BENEFITS OF REUSE

- A guaranteed water supply, even in times of drought when drinkable water use is restricted
- Treated wastewater has more nutrients and may reduce the need for fertilizer and cut costs for homeowners and businesses
- Reuse recycles safe but undrinkable water for activities that do not require the high level of quality needed for human consumption. This is not only cost effective, but preserves drinking-quality water for future generations of Rhode Islanders
- Recycling water can eliminate or reduce discharge of effluent and nutrients into waterways avoiding sometimes harmful impacts
- Potential cost savings if the effluent is offered at a reduced price or is subsidized

## WHY DOES RHODE ISLAND NEED INTEGRATED WATER RESOURCES MANAGEMENT?

### REMEMBER THE DROUGHT?

Rhode Island has experienced successive drought conditions in summer months. Reduced water supply combined with population growth necessitates stricter controls on water consumption and identification of alternative water sources. Technological innovations and regulatory advances in the field of wastewater treatment have resulted in improved safety and reliable quality for sensitive vegetation.

Many current uses of water in the state do not require drinking water quality. The Environmental Protection Agency and other federal agencies and environmental organizations have announced support for wastewater reclamation projects as a critical element in meeting present and future water demand. Reuse in the United States is predominantly located in southern and western regions. Due to conditions like the droughts of the past summers, Rhode Island and other New England states have adopted water reclamation measures. Currently, Rhode Island is crafting an integrated water resources plan that takes advantages of these alternative sources and their capacity for reuse and recycling.

### CREATIVE THINKING

How Rhode Island is reusing wastewater

Once dry and baked, with little grass in late summer, the Jamestown Golf Course has undergone a near-miraculous recovery. The Jamestown Wastewater Treatment Facility (WWTF) has supplied treated effluent to the golf course for irrigation since mid-1990, and today the course is lush and green throughout the hottest months. Jamestown officials and the golf course operators worked closely with the RI Department of Environmental Management, the RI Department of Health, and members of the community to ensure that the new watering practices addressed health and environmental concerns. The WWTF is located one mile away, and in summer months can divert almost all of its discharge to the golf course, where an underground irrigation system has revitalized the course.

### *FPL Power Plant - Johnston*

The Cranston WWTF has supplied effluent to FPL Power Plant for cooling since 2002 in a successful public/private partnership that maximizes the benefits of the local water supply. Power plant officials worked with Department of Environmental Management staff to craft regulations for the project (WHICH DID WHAT?). The WWTF, located 12 miles from the power plant, pumps an average of 5 million gallons per day to FPL... (SO WHAT?)

# **CLOSING THE LOOP BETWEEN WATER SUPPLY AND WASTEWATER DISPOSAL**

## **SHAPING FUTURE WATER RESOURCE USE IN RHODE ISLAND**

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Implementation of an integrated water resources management approach that can recycle and reuse wastewater in Rhode Island involves social, economic and environmental considerations.

Regulations governing potential uses for reclaimed water, stringency of waste discharge requirements, public health considerations, and public policy emphasizing water conservation are all to be considered – and made consistent – as the state examines where and how its water supplies should be utilized.

For this reason, various interested government regulatory and economic agencies, environmental groups, and representatives from agricultural groups and industry have been meeting to discuss and research the potential for a comprehensive wastewater reuse program that is tailored to Rhode Island's needs and future goals.

**YOUR INPUT IS NEEDED!**

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**IF YOU ARE INTERESTED IN  
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**OR**

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## **WHY WASTE WATER?**

**HOW RHODE ISLAND IS  
MAKING THE MOST OF  
IT'S WATER SUPPLIES**

PHOTO HERE

**An Integrated Approach  
to Water Resources  
Management**

***A GUIDE TO WASTEWATER REUSE  
&  
EXISTING REUSE PROJECTS IN THE  
STATE***